

Value pluralism in ecosystem services assessments

Citation for published version (APA):

Neuteleers, S. L. F., & Hugé, J. J. A. (2021). Value pluralism in ecosystem services assessments: closing the gap between academia and conservation practitioners. *Ecosystem Services*, 49(2021), Article 101293. <https://doi.org/10.1016/j.ecoser.2021.101293>

DOI:

[10.1016/j.ecoser.2021.101293](https://doi.org/10.1016/j.ecoser.2021.101293)

Document status and date:

Published: 01/06/2021

Document Version:

Publisher's PDF, also known as Version of record

Document license:

Taverne

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

<https://www.ou.nl/taverne-agreement>

Take down policy

If you believe that this document breaches copyright please contact us at:

pure-support@ou.nl

providing details and we will investigate your claim.

Downloaded from <https://research.ou.nl/> on date: 08 Sep. 2023

Open Universiteit
www.ou.nl





Value pluralism in ecosystem services assessments: Closing the gap between academia and conservation practitioners

Stijn Neuteleers^{*}, Jean Hugé

Environmental Sciences, Open Universiteit (OU), the Netherlands

ARTICLE INFO

Keywords

Value pluralism
Decision-support tools
Ecosystem services assessment

ABSTRACT

There have been several pleas for more inclusive ecosystem services assessments in recent years. This is partially due to a growing consensus about the importance of incorporating value pluralism into ecosystem services assessments. While there is increasingly attention for such value pluralism in academia and at the IPBES science policy interface, this concern barely reached many conservation practitioners, as indicated in studies reviewing decision support tools for ecosystem services. We examined six review studies of such tools and this revealed there is indeed little attention for value pluralism and only a part of the tools provides the conceptual space to incorporate value pluralism. The growing scientific and science-policy consensus that recognizing value pluralism is key for inclusive assessments can only be translated in actions if there is a connection to the field. Users of ecosystem services assessment tools should have the opportunity to select value-inclusive tools, as this can lead to a stronger support base for conservation actions, prevent conflict, and lead to more comprehensive ecosystem services assessments. This does not imply that all tools need to focus on values; the actual goal of a specific ecosystem services assessment tool is context-specific. If scientists want the plural valuation debate to have an impact on conservation practices, three conditions need to be fulfilled: (i) developing value-inclusive decision-support tools; (ii) clarifying when to use value inclusive tools; and (iii) learning from and sharing of value-inclusive tools.

1. Introduction

There have been several pleas for more inclusive ecosystem services assessments in recent years. Inclusiveness may refer to the scope of these assessments (e.g. what ecosystem services are covered), to the sources of expertise that are used, to the diversity of engaged stakeholders, and/or to an explicit acknowledgement of value pluralism (Arias-Arévalo et al., 2018; Gómez-Baggethun et al., 2014; Jacobs et al., 2016, 2020). While value pluralism is conceptually complex, a threefold distinction is generally proposed between instrumental, intrinsic and relational values of nature (Chan et al., 2016). Proposals for a new IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) framework, recently labelled as 'Nature's Contributions to People', also refer to this (Díaz et al., 2015, 2018; Pascual et al., 2017).

This reveals a growing consensus about the importance of incorporating value pluralism into ecosystem services assessments and about the use of this threefold value categorization. This awareness of value pluralism is rooted in part in worries emanating from conservation

practitioners (e.g. regarding ignoring indigenous knowledge) and has strong conceptual foundations in philosophy (Muraca, 2011; Neuteleers, 2020; O'Neill et al., 2008). Underlying these pleas for inclusiveness is a worry that an ecosystem services-based approach might be overly focused on instrumental values of nature and might hence leave little room for non-utilitarian considerations (Deliège and Neuteleers, 2015; Fisher and Brown, 2015).

While there is a growing attention for such value pluralism among scientists and at the IPBES science-policy interface, this concern is barely translated in decision-support tools that are meant to be used by conservation practitioners in the field (e.g. while managing protected areas). These tools go beyond specific methodologies and aim to provide integrated, systematic, quantifiable, robust and credible ecosystem services assessments (Bagstad et al., 2013). Based on our earlier research (Hugé et al., 2020), we examined six review studies of such tools, namely Bagstad et al., 2013; Grêt-Regamey et al., 2017; Hugé, 2020; Neugarten, 2018; Pandeya, 2016; Vorstius and Spray, 2015. These reviews all date from the last 7 years and cover on average 20 tools (ranging from 5 to 68 tools). Our explorative mini-review (of reviews)

^{*} Corresponding author.

E-mail address: stijn.neuteleers@ou.nl (S. Neuteleers).

revealed two things.

First, there is little explicit attention for value pluralism: the three-fold value distinction instrumental/intrinsic/relational is not mentioned at all; the reviews do not use criteria related to values to assess the tools; and the ideas of instrumental, intrinsic and relational values are rarely mentioned in the review papers. Second, only a part of the tools provided conceptual space to incorporate value pluralism, reflected in proxies such as the potential of the tool to incorporate the cultural dimension of ecosystem services and to integrate stakeholder input. In the review of Hugé et al., 2020 13 out of 17 tools look at cultural ecosystem services and in Neugarten et al. (2018), 5 of the 9 tools examined these. In Hugé et al., 11 out of 17 tools use stakeholder input, and in Neugarten et al., this applies to 3 out of 9 reviews.

The cultural dimension of ecosystem services seems especially relevant for relational values. Such values refer to place-specific connections people have to nature, often expressed in notions such as identity, meaning, community, history and narrative(s). Although such elements are hard to assess at all, openness to cultural ecosystem services seems a precondition for a value-inclusive tool. In practice however, cultural ecosystem services are often only operationalized as recreation and aesthetics, which is actually a mainly instrumental valuation of nature.

Most of these review studies aim at helping conservation practitioners to select the most adequate tool and therefore focus on criteria such as time requirements and required inputs. The fact that the reviews of tools do not list ‘value pluralism’ as a criterion indicates that the scientists writing these reviews do not expect practitioners will use this as a criterion to select tools. In sum, our review of recent decision-support tools indicates that scientists’ growing awareness of value pluralism is insufficiently reflected in the tools that scientists are compiling for conservation practitioners.

This pinpoints a gap between, on the one hand, the scientific (and policy) consensus stating that value pluralism is key, and, on the other hand, the practice-oriented tools that are supposed to support practitioners who are implementing conservation actions. Users of ecosystem services assessment tools should ideally have the option to choose value-inclusive and user-friendly tools. The user-friendliness of these tools can further be increased by including the users’ perspective: conservation practitioners can be involved in a collaborative co-production exercise with scientists.

This does not imply that all tools need to focus on values; the actual goal of a specific ecosystem services assessment tool is context-specific and cannot be generalized. However, conservation practitioners should have the opportunity to select value-inclusive tools, as this will typically lead to a stronger support base for conservation actions, prevent conflict, and lead to more comprehensive ecosystem services assessments.

If scientists want the plural valuation debate to have an actual impact on conservation practices, three conditions need to be fulfilled:

- i. Developing value-inclusive tools: Decision support tools need to be adapted or developed in such a way as to allow for the explicit acknowledgement and assessment of value pluralism, as conservation practitioners need to have the option to incorporate values in their assessments;

- ii. Clarifying when to use value-inclusive tools: A reflection on when and why value pluralism needs to be incorporated in tools, is necessary to guide practitioners in selecting the relevant tools for management purposes;
- iii. Learning from and sharing of value-inclusive tools: Pilot studies, sharing of good practices and research collaboration with practitioners will help to develop inclusive tools and foster learning about plural values at the science-policy-practice interface.

The underlying idea is not just to have more value pluralism represented in decision-support tools, but that such value-inclusive tools will eventually lead to more effective conservation action.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- Arias-Arévalo, P., Gómez-Baggethun, E., Martín-López, B., Pérez-Rincón, M., 2018. Widening the evaluative space for ecosystem services: A taxonomy of plural values and valuation methods. *Environ. Values* 27 (1), 29–53.
- Bagstad, K.J., Semmens, D.J., Waage, S., Winthrop, R., 2013. A Comparative assessment of decision-support tools for ecosystem services quantification and valuation. *Ecosyst. Serv.* 5, 27–39.
- Chan, et al., 2016. Why protect nature? Rethinking values and the environment. *PNAS* 113, 1462–1465.
- Deliège, G., Neuteleers, S., 2015. Should biodiversity be useful? Scope and limits of ecosystem services as an argument for biodiversity conservation. *Environ. Values* 24 (2), 165–182.
- Díaz, S., et al., 2015. The IPBES conceptual framework—connecting nature and people. *Current Opinion in Environmental Sustainability* 14, 1–16.
- Díaz, S., et al., 2018. Assessing nature’s contributions to people. *Science* 359 (6373), 270–272.
- Fisher, J.A., Brown, K., 2015. Reprint of “ecosystem services concepts and approaches in conservation: just a rhetorical tool?”. *Ecol. Econ.* 117, 261–269.
- Gómez-Baggethun, E., et al., 2014. State-of-the-art report on integrated valuation of ecosystem services. EU FP7 OpenNESS project deliverable 4, 1–33.
- Grêt-Regamey, A., Sirén, E., Brunner, S.H., Weibel, B., 2017. Review of decision support tools to operationalize the ecosystem services concept. *Ecosyst. Serv.* 26, 306–315.
- Hugé, J., et al., 2020. Ecosystem services assessment tools for african biosphere reserves: a review and user-informed classification. *Ecosyst. Serv.* 42, 101079. <https://doi.org/10.1016/j.ecoser.2020.101079>.
- Jacobs, S., et al., 2016. A new valuation school: integrating diverse values of nature in resource and land use decisions. *Ecosyst. Serv.* 22, 213–220.
- Jacobs, S., et al., 2020. Use your power for good: plural valuation of nature—the oaxaca statement. *Global Sustainability* 3, 1–7.
- Muraca, B., 2011. The map of moral significance: a new axiological matrix for environmental ethics. *Environ. Values* 20 (3), 375–396.
- Neugarten, R.A., et al., 2018. Tools for Measuring, Modelling, and Valuing Ecosystem Services. IUCN, Gand, Switzerland.
- Neuteleers, S., 2020. A fresh look at ‘relational’ values in nature: distinctions derived from the debate on meaningfulness in life. *Environ. Values* 29 (4), 461–479.
- O’Neill, J., Holland, A., Light, A., 2008. *Environmental Values*. Routledge, London.
- Pandeya, B., et al., 2016. A comparative analysis of ecosystem services valuation approaches for application at the local scale and in data scarce regions. *Ecosyst. Serv.* 22, 250–259.
- Pascual, Unai, et al., 2017. Valuing nature’s contributions to people: the IPBES approach. *Current Opinion in Environmental Sustainability* 26-27, 7–16.
- Vorstius, A., Spray, C.J., 2015. A comparison of ecosystem services mapping tools for their potential to support planning and decision-making on a local scale. *Ecosyst. Serv.* 15, 75–83.